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THIRD

ANNUAL REPORT

OF THE

SECRETARY

OF THE

STATE BOARD OF HEALTH

OF THE

STATE OF VERMONT,

FOR THE

Year Ending Sept. 1st, 1889.

RUTLAND:
THE TUTTLE COMPANY, OFFICIAL PRINTERS.
1889.

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STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY,
RUTLAND, September 1st, 1889.

His Excellency,

WILLIAM P. DILLINGHAM,

Governor :

SIR :—I have the honor herewith to transmit the Third Annual Report of the State Board of Health, for the year ending September 1st, 1889.

Very Respectfully,

Your Obedient Servant,

CHARLES L. ALLEN,

Secretary.

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No. 93.—AN ACT TO PREVENT THE SPREADING OF CONTAGIOUS DISEASES AND TO ESTABLISH A STATE BOARD OF HEALTH.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. The governor, by and with the advice and consent of the senate, shall appoint three persons as members of a State Board of Health for the State of Vermont. The term of office of said members of said board shall be so arranged that the term of one of them shall expire at the end of every second year. Vacancies in said board shall be filled as they occur by appointment of the governor, and confirmation by the senate when next in session.

SEC. 2. The members of said board first named in said appointment shall call a meeting of said members immediately after notice of said appointment shall be received by said members, and said board shall meet within six days after said notice, at the time and place designated in said call, and said board shall organize by electing one of their number to be president of said board, and the board shall also appoint a secretary, who shall be a reputable practicing physician of this State, and if not one of the members of said board by appointment he shall be a member of the board by virtue of his appointment of secretary. The said secretary shall hold his office until said board shall appoint another secretary, and he shall be the executive officer of said board of health.

SEC. 3. The board shall take cognizance of the interests of life and health among the inhabitants of the State; shall make or cause to be made sanitary investigations and inquiries respecting causes of disease, especially of epidemics, and the means of prevention; the sources of mortality and the effect of localities, employments, habits, and circumstances of life on the public health. They shall also, when requested, or when in their opinion the sanitary interests of localities require it, advise with municipal officers with regard to the location, drainage, water supply, heating and ventilation of public buildings and the drainage and sewerage of towns and cities.

SEC. 4. The board shall meet biennially on the second Tuesday of the session of the legislature at Montpelier, and at such other times and places as in the judgment of the board the public health may require, and also whenever the public safety of the people or the stock and domestic animals of the State shall require. The secretary, as executive officer of the board, shall superintend the performance of the work prescribed in this act, and shall perform such other duties as the board shall direct. He shall also respond to the invitations of boards of selectmen of the several towns, or the mayor of a city, in case of epidemics, contagious diseases or

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other unusual sickness, by visiting the locality, or in such other ways as may be deemed best; he shall render the secretary of state any necessary assistance in preparing for publication the annual registration reports, as required by law, relating to births, deaths and marriages in the State, and he shall make report to the governor on or before the first day of September in each year of the investigations, discoveries, and recommendations of the board, which report shall be printed and distributed as soon as practicable thereafter in the same manner as other public documents of the State.

SEC. 5. The compensation of members of the board shall be five dollars per day and actual expenses while in the discharge of their official duties, and the governor and auditor of accounts may allow to the secretary of said board such additional sums for services as secretary, or for services in times of extraordinary peril, as seem to them reasonable, provided the whole expense of the board, including the secretary for services rendered and all expenses incurred, shall not exceed one thousand five hundred dollars in any year, except in some extraordinary public peril, in which case the governor may order said board to do and perform service for the safety of the State and her people in excess of said sum, but never to exceed the sum of two thousand five hundred dollars in all in any one year.

SEC. 6. This board shall have authority to promulgate and enforce such regulations for the better preservation of the public health in contagious and epidemic diseases as they shall judge necessary; and any person or persons or corporation neglecting or refusing, after having been duly notified in writing, to comply with the requirements of such regulations shall, upon conviction thereof, pay to the treasurer of the State a fine of not less than twenty-five dollars nor more than one hundred dollars, said offense to be prosecuted for before any court of competent jurisdiction in the State.

SEC. 7. This act shall take effect from its passage.

Approved November 23, 1886.

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REPORT.

—:o:—

The law establishing the State Board of Health gives so little power to the Board that it has been found impossible to do much really efficient work. The Board, however, has endeavored to educate the people in the principles of hygiene. For this purpose it has published a quarterly pamphlet, The Sanitary Visitor, and circulated it as widely as its funds would allow.

At the regular meeting, in October, 1888, the Board drafted a bill, in accordance with the recommendations contained in the Second Annual Report, which, after having been before the Legisture during several weeks, and finally emasculated in one of its most important points by the Committee on Public Health, was passed by both houses, and then vetoed by the Governor.

The Public Health Committee struck out from the original bill the section making it a penal offense to bury a dead human body without a written permission given by a health officer, which permission must be based upon the certificate of the attending physician as to the cause of death. In some towns there are two villages and the health officer might live in one and the death might have taken place in the other,—thus the person having charge of the burial would be obliged to go two, three or even five miles, to get the burial permit. This, occurring in a few instances, the committee thought such a burden that it entirely overbalanced the advantage of having reliable statistics from the whole State.

The following is the bill drafted by the Board of Health. The parts stricken out by the committee are included in brackets. The additions are printed in italics:

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SENATE 45.

[Introduced by Senator Taft, of Chittenden County, and referred to the Special Joint Committee on Health.]

AN ACT DEFINING THE DUTIES AND POWERS OF THE STATE AND LOCAL BOARDS OF HEALTH, OF HEALTH OFFICERS, AND OTHERS.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. Selectmen of towns, and Aldermen of cities, [Bailiffs and Trustees of incorporated villages], shall be called, and shall act as LOCAL BOARDS OF HEALTH with duties and powers hereinafter assigned. Selectmen of towns may, if, in their opinion, it is advisable, appoint three suitable persons as a local Board of Health, who shall perform the duties and exercise the powers otherwise assigned to the Selectmen as Boards of Health.

SEC. 2. The health officer, appointed by the State Board of Health, shall be Secretary and Executive Officer of the local Board of Health, and shall hold his office two years, and until another is appointed, unless he resign or is removed for proper cause. He shall make sanitary inspections whenever and wherever he has reason to suppose anything exists which may be detrimental to public health. He shall have authority to enter slaughter-houses, cheese-factories, or any place where any kind of food or drink is manufactured or prepared, kept or sold; to enter cellars or other premises wherever filth is liable to accumulate. He shall, as executive officer of the local board, give a written order for the destruction, prevention or removal, within a certain specified time, of all nuisances, sources of filth, or causes of sickness. Any one neglecting or refusing to comply with a written order of a health officer shall be subjected to a fine of not less than five dollars nor over one hundred dollars.

The health officer shall receive all certificates of death and give certificates of permission for [burial or] removal, in accordance with rules hereinafter prescribed. He shall transmit immediately to the Town Clerk all certificates of death. In all cases of death, where no physician has been in attendance, he shall investigate enough to satisfy himself, if possible, of the cause of death, and shall make the certificates usually called for from the attending physician. He shall, upon receiving notice of any case of infectious or contagious disease, dangerous to the public health, investigate enough to determine, if possible, the source or cause of the disease; shall institute such means of prevention and restriction as may be necessary, and shall immediately report all the facts to the Secretary of of the State Board of Health. Whenever a communicable disease is prevailing to any considerable extent more than usual, or becomes

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epidemic, he shall make to the Secretary of the State Board of Health weekly reports concerning that disease during its continuance. And once in each year, during the month of May, shall make to the Secretary of the State Board of Health a general report of the sanitary condition and public health of his town.

For each certificate of permission for [burial or] removal, (to be given in duplicate if necessary) he shall receive twenty-five cents, to be paid by the person using the certificate. [For each case of investigation and certificate of death, where there was no physician in attendance, he shall receive fifty cents.] If the local board shall consider a post mortem examination necessary, to determine the cause of death, the health officer, or other person employed to make such examination, shall be entitled to five dollars, to be paid from the treasury of the town, upon presentation of bill approved by the local board. For each report to the Secretary of the State Board of Health, of contagious disease, he shall be paid fifteen cents; and for each annual report he shall receive one dollar; each to be paid by the Town Treasurer. For sanitary inspections and services in general, he shall receive such compensation as the local board shall consider just and reasonable.

SEC. 3. The local boards, whether consisting of the Selectmen, or of persons appointed by them, or of Aldermen of cities, [or of Bailiffs or Trustees of villages,] or of committees on public health appointed by them, shall have authority to abate all nuisances, destroy, prevent or remove all sources of filth or causes of sickness; to place a quarantine upon any house or premises in which any infectious or contagious disease detrimental to public health may exist. They shall have power to compel the thorough disinfection of premises where infective diseases have existed, and of persons who have been infected. They shall destroy by fire (if not susceptible of disinfection otherwise) furniture, carpets, bedding, clothing, and other personal goods of persons dying of [consumption, cancer, scrofula,] syphilis, cholera, small-pox, diphtheria, scarlatina, and other infective diseases, *and the property so destroyed shall be paid for by the town.*

They may order the health officer to make sanitary inspection, and may order post mortem examinations to be made. They shall adopt the regulations promulgated by the State Board of Health, which are hereby declared to be legal enactments.

They shall have authority to call on Sheriffs, Constables, and the police, whenever it may be necessary to have assistance in the proper discharge of their duties.

SEC. 4. The State Board of Health shall appoint a health officer in each city, or town [and incorporated village] in the State, and shall give him a certificate signed by each member of the board.

The Secretary of the State Board of Health shall receive the reports from health officers concerning infectious and contagious diseases, and shall immediately take such action upon them as may be necessary, [either by visiting the localities personally, or requesting another member of the board to visit them, or by writing, or

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sending circulars.] He shall also receive the annual reports of the health officers, which he shall embody in substance or in full in his annual report. He shall receive from the Town Clerks the returns of births, marriages and deaths, and from the County Clerks the returns of divorces, and at an extra expense to the State, not exceeding one hundred dollars, shall prepare therefrom such tables and append such remarks and observations thereto as may make those returns most useful.

This Registration report shall be printed on or before the first day of September of each year, and shall be distributed in the same manner as other public documents of the State. After having compiled the tables, he shall transmit to the Secretary of State, for indexing, binding and preservation, the returns received from the Town and County Clerks.

He shall prepare and send to the health officers suitable blanks upon which to return to him their reports of infectious and contagious diseases and their weekly reports of epidemics. He shall also prepare and send to each physician in the State suitable blanks upon which the physicians can make out and send to the health officer reports of infectious and contagious diseases. Also blanks for the returns of births and deaths.

SEC. 5. Town Clerks shall receive, number and record in the order in which they are received, all certificates of births, marriages and deaths in their respective towns, and the record shall show when it was made. They shall annually, in the month of January, beginning with January, 1890, transmit to the Secretary of the State Board of Health a certified copy of such record made for the year next preceding the first day of January. Town Clerks shall receive the same compensation for furnishing such copy as they have heretofore received for furnishing the same for the use of the Secretary of State.

SEC. 6. The Clerks of the County Courts shall, on the last day of December in each year, beginning with the last day of December, 1889, make returns to the Secretary of the State Board of Health of the number of divorces granted, together with the causes for which they were granted, in their respective counties during the year ending on that day.

[SEC. 7. No dead body of a human being shall be buried or cremated, or removed from town without a certificate of permission from the health officer. The penalty for such burial, cremation, or removal without such certificate of permission shall be a fine of not less than one hundred dollars, or confinement in the County Jail for a term of not less than one month, or both, at the discretion of the Justice.]

SEC. 8. Any physician, midwife or other person who may be present at the time of the birth of a child shall, as soon as possible thereafter, report to the Town Clerk, the date, place of birth of each child, the sex, names, birthplaces and residence of the parents,

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and occupation of the father. Any person failing to furnish such information to the Town Clerk shall forfeit and pay to the town a sum not less than five dollars.

Any physician who has attended a deceased person shall at once fill out a certificate, giving the date of death, the name, age, sex and social relation of the deceased, the cause of death, place of death, occupation, if a male over fifteen years of age, place of birth, and names of parents of the deceased. [For this certificate the physician shall be entitled to a fee of twenty-five cents to be paid by the person using the certificate.] This certificate is to be forwarded to the health officer, who shall upon the receipt of it, give a certificate of permission for [burial or] removal under proper restrictions and safeguards. When no physician has been in attendance, the head of the household, or the next in kin, shall notify the health officer, who, after proper investigation, shall issue the certificate of death, and the certificate of permission for [burial or] removal.

All cases of stillbirths shall be reported and recorded among the deaths, with all the facts which are to be reported in other cases of death. *The fee for making the reports of births and deaths shall be fifteen cents each.*

SEC. 9. Any householder in whose dwelling there shall occur a case of infectious or contagious disease, dangerous to the public health, shall immediately give notice to the health officer. Any physician who knows or suspects that any person to whom he has been called is sick, or has died of any communicable disease, dangerous to the public health, shall at once report to the health officer the place where such case exists, the name, degree of virulence and cause or source of the disease, if it can be determined.

Any householder or physician failing to give timely notice to the health officer of the existence of such disease shall be subject to a fine of not less than ten dollars.

SEC. 10. The bodies of persons dead of small-pox, Asiatic cholera, typhus fever, or yellow fever, as soon as the evidences of death are conclusive, must be wrapped in a sheet saturated in a solution of a half pound of chloride of zinc in a gallon of water, or a solution of bichloride of mercury of not less than two per cent strength, enclosed in a proper coffin or box, and buried immediately, with as little publicity as possible. Such bodies shall not be allowed to be put into any hearse or public vehicle, and shall not be removed from town to town, or be brought into the State.

The bodies of those who have died of diphtheria, scarlatina, typhoid fever, erysipelas, or other infectious, contageous or communicable disease, shall be prepared and buried in the same manner, with as little delay and publicity as possible. But these latter bodies may be removed and transported, provided that the bodies be prepared as before, and incased in an air-tight zinc, copper or lead lined coffin or in an air-tight iron casket, and enclosed in a strong wooden box, the space between the coffin and the outside box being filled with sawdust saturated with one of the solutions

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before mentioned; provided also that the health officer gives a certificate with the cause of death clearly stated, and the undertaker gives an affidavit as to how the body has been prepared and encased, and the health officer of the place to which the body is consigned, shall give consent to its receipt.

Any person violating the provisions of this section shall be subject to a fine of not less than ten dollars.

SEC. 11. The performance of duty of local boards, health officers and others may be enforced by a writ of mandamus at the instance of any member of the State Board of Health.

SEC. 12. Any physician, midwife, nurse or other person neglecting to give the required certificate or notice of a birth or death, shall be subject to a fine of not less than five dollars.

SEC. 13. If a town clerk fails to comply with the requirements of the law in relation to making returns of births, marriages and deaths, to the Secretary of the State Board of Health, he shall be fined not less than twenty dollars.

SEC. 14. The Secretary of the State Board of Health shall cause prosecutions to be commenced in the name of the State in an action on the case, founded on this chapter, to recover any penalty or forfeiture imposed by the provisions therein, whose recovery is not otherwise provided for.

SEC. 15. All acts or parts of acts incompatible with the foregoing provisions are hereby repealed.

URBAN A. WOODBURY,
President of the Senate.

JOSIAH GROUT,
Speaker of the House of Representatives.

SENATE CHAMBER, Oct. 22, 1888.

Read the first and second times and referred to the Special Joint Committee on Health.

FRED. W. CADY, Asst. Sec'y.

SENATE CHAMBER, Nov. 24, 1888.

Reported favorably with amendments. Amended. Third reading ordered. Read third time and passed.

FRED W. CADY, Asst. Sec'y.

IN HOUSE OF REPRESENTATIVES, Nov. 26, 1888.

Read twice and referred to the Special Joint Committee on Health.

G. M. POWERS, Asst. Clerk.

IN HOUSE OF REPRESENTATIVES, Nov. 27, 1888.

Reported favorably, read the third time, and passed in concurrence.

J. H. MERRIFIELD, Asst. Clerk.

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The Governor returned to the Senate Senate 45, relating to the duties and powers of boards of health, with his veto thereon, as follows:

To the President of the Senate:

I have the honor to return to the Senate, where it originated, Senate bill No 45, entitled "An act defining the duties and powers of the State and Local Boards of Health, of health officers and others," without the executive approval.

The bill comes to me at a late hour in the session, and I have time to state only one or two of the many reasons for my action.

The provisions of the bill are so many, so remarkable in character, and so burdensome in operation, that they should not be adopted without the careful consideration of both branches of the Legislature, and I am informed that in the House of Representatives the bill was read by its title only.

Another objection lies in the fact that by the provisions of section three all of the regulations which may be promulgated by said board are declared to be legal enactments.

I am of the opinion that the Legislature has not the authority to delegate such powers; and if such authority existed, I am of the opinion that it should not be exercised.

WILLIAM P. DILLINGHAM,

Governor.

The Senate refused to pass the bill over the veto, 23 to 0.

Any act defining duties of officers and others, if they have very much to do, must necessarily have many provisions, but it is hard to see what there is very remarkable in the character of those in this bill. Of course, in some cases, these provisions may be burdensome in operation; but every good citizen ought to be willing to bear a light burden for the general good.

The other objection of the governor is certainly well founded. But the Board had reference only to the regulations which had already been promulgated and which were printed in the Second Annual Report, a copy of which had been lying for several weeks upon the desk of each member of the Legislature.

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MEETING OF THE BOARD.

The State Board of Health met, pursuant to a call from the President, at the Van Ness House, in Burlington, on Friday, December 21st, 1888.

There was some conversation upon the bill which passed both branches of the Legislature and was vetoed by the Governor. It was a cause of regret that the bill could not have been acted upon earlier in the session so that the objectionable features might have been modified. The bill had been before the Legislature for five or six weeks, and was only passed by the House on the last evening of the session.

Discussion was then had as to the best means by which information could be obtained by the Board in regard to the public health in different sections of the State.

A health officer is not recognized in the statutes of the State, except, perhaps, in the acts of incorporation of some of the villages. But it is within the power of the selectmen to appoint a person and call him a health officer, or any other name they please; and they can delegate to him certain duties which they are by law required to perform, and which are ordinarily performed by health officers in other States.

Although the selectmen had been repeatedly urged to appoint such an officer they had almost universally neglected to do so; still it was deemed advisable to make another attempt to induce them to do so.

Next was considered the propriety of establishing a sanitary periodical for circulation within the State, which might be a means of interesting and instructing the people in matters pertaining to

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health. It was voted that the experiment be tried, and that the first number be issued in January next. The form, size, etc., of the periodical was left to the discretion of the Secretary, who was to be the editor.

After consideration of the subject it was thought best to have regular quarterly meetings, notice of the time and place of meeting to be published before each meeting—so that if any one wished to call the attention of the board to any matter an opportunity would be given.

The next quarterly meeting to be held at the Van Ness House in Burlington, on the 11th of April, 1889.

Adjourned.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.
RUTLAND, February 10th, 1889.

To the Selectmen, Newport, Vermont:

GENTLEMEN—It is reported that diphtheria is prevailing in your town. You can act, and you are the only persons who can act, to stamp out this disease at once, and if it spreads you will be responsible. By Section 3924, Revised Laws, you will see that the selectmen "*shall*" (not *may* but *shall*) make such regulations respecting * * *causes* of *sickness*, etc."

Now if you will in full board adopt the accompanying regulations as *the* regulations which you are required to adopt, you will have the whole control in your hands. After officially adopting the regulations, write across each copy as I have on the one enclosed, and distribute them about town. I send you all I have on hand, but I am having more printed and will forward you any number you wish.

I also send you a circular upon diphtheria, which you will please read and have distributed among the neighbors of the families in which the disease exists.

CHARLES L. ALLEN,
Secretary.

NEWPORT CENTER, VT., Feb. 23, 1889.

Chas. L. Allen, M. D.:

DEAR DR.—In answer to your communication regarding diphtheria in our town, I will say that it is not prevailing. I know of no cases in town, and I think there has been none in town with the exception of one family, and that family was kept perfectly isolated.

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Newport is noted for its care of the *poor* and *sick*, and every care is taken to prevent the spread of contagious diseases. Your circular sent I have carefully circulated.

Yours very truly.

C. L. ERWIN, 1st Selectman.

NEWPORT, VT., April 9th, 1889.

Dr. C. L. Allen, Sec. Vt. S. B. H.:

DEAR DOCTOR—Is there any method by which owners or occupants of village premises can be *obliged* to renovate back-door slop holes, privies and hog-pens ?

I had nine cases of typhoid fever last fall within a radius of about ten rods. The back doors, cellars, wood-sheds and privies and hog-pens were in a terrible condition. The tenants *would* not clean them, and upon complaint to our health officer and inspection of them with him, he at once notified the owners of the property, who promised to clean up, but they did not. The premises are, or will be (when warm weather arrives), as bad, if not worse than last year.

Is there no Balm in Gilead ?

Fraternally yours,

C. F. BRANCH, M. D.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.
RUTLAND, April 30th, 1889.

C. F. Branch, M. D.:

DEAR DOCTOR—Your letter of April 9th was duly received at the Van Ness House in Burlington, and laid before the Board.

On the 10th of February last I wrote to the selectmen of Newport, calling their attention to their duty as prescribed by the Revised Laws, Sec. 3924, which says the selectmen "*shall* make such regulations respecting nuisances, sources of filth and causes of sickness, etc." At that time I sent them several copies of the circular which I enclose to you, requesting them to adopt them as *the* regulations which they were required by law to make, writing across each, as I have, and distribute them about town. At the same time I also sent them some circulars (No. 4) on Diphtheria. Two or three weeks afterwards a letter from C. L. Erwin, 1st selectman, was received in which he says he had "carefully circulated" the "circulars" but not a word as to whether the selectmen had adopted the "regulations." I inferred that Circular No. 4 had been distributed, and Circular No. 5 had been thrown aside.

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By looking at the law you will see that if the selectmen will adopt these regulations they have authority directly over all those nuisances you speak of and can *oblige* persons under a penalty of $100 to clean up their premises.

The State Board of Health has authority only in the actual presence of "contagious and epidemic diseases," and then is obliged to write to the offender and wait to see the effect of the written order before it can proceed any farther.

If your village is incorporated, I suppose the police regulations and sanitary matters of the village devolve upon the trustees or bailiffs, and not upon the selectmen. Then, of course, it will be necessary to have the village authorities adopt and promulgate these regulations, making the corresponding change in the writing I have made on the circular. Please call their attention to this matter, and if they want any number of the Circular No. 5, I will be glad to furnish them freely.

I have written to the health officer and also to the selectmen again. Will you be kind enough to let me know the result?

Very respectfully,

C. L. ALLEN,

Secretary.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

To the Health Officer of Newport:

DEAR DOCTOR—Enclosed is a copy of the regulations promulgated by the S. B. of H. But we have no power to enforce them except when "contagious and epidemic diseases" actually exist, and then only in a round-about way. If your village is incorporated the authorities of it have the powers and duties which, in towns, are conferred upon the selectmen, in regard to police and sanitary matters. By consulting Sec. 3924, Revised Laws, you will see that they "*shall* make such regulations respecting nuisances, sources of filth and causes of sickness, etc." Please call the attention of your village authorities, or if you have none, of the selectmen of the town to their duties in this matter. If they will adopt these regulations as *the* regulations, etc., then they will have the whole matter in their hands, and can authorize you to oblige tenants and owners of property to renovate back-door slop holes, cellars, wood-sheds, privies and hog-pens, etc. If they wish copies of these regulations, I will furnish them with any number. They can write across the face of the circular under the line "of Vt." and by the selectmen or trustees of the town of Newport, then circulate them throughout the town.

C. L. ALLEN,

Secretary.

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STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, April 30, 1889.

To the Selectmen of Newport:

GENTLEMEN—Last winter I wrote requesting you to adopt the accompanying regulations as *the* regulations which you are required to make by Sec. 3924, Revised Laws. Having heard that typhoid fever prevailed in your village last fall, and fearing that it may again occur, I write to urge upon you the necessity of enforcing the regulations from 12 to 17 inclusive and also 27, more particularly at this time; before hot weather commences.

Typhoid fever can be prevented. By adopting and enforcing these regulations, you can almost certainly prevent an outbreak of typhoid fever. Give your health officer power to inspect premises and order such cleaning up and disinfection as he may think necessary. Where typhoid fever has been the year before the disinfection should be very thorough.

See pages 3 and 5 of Circular No. 1.

Very respectfully,

C. L. ALLEN, Sec.

CHICAGO, March 9th, 1889.

Dr. C. L. Allen, Sec. B. of H., Rutland, Vt.:

DEAR SIR—Will you kindly furnish the SANITARY NEWS with a copy of the laws governing the health department of your State, and relating to general sanitation?

Wherein in your opinion are the laws defective, and what improvements would you suggest?

Have you compulsory notification of infection, and what is your opinion regarding same?

What sum does the State appropriate to the Health Department, and what sum should be appropriated to secure efficient services?

Can you send us the names and addresses of the secretaries of local or county boards in your State?

I have in preparation a series of articles on legal sanitation and desire the information, with whatever you may add to make them as complete and exhaustive as possible.

Thanking you in advance for the favors solicited; I am

Most truly yours,

A. H. HARRYMAN, Editor.

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STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, March 14th, 1889.

A. H. Harryman, Editor Sanitary News:

DEAR SIR—Your letter of March 9th, making certain inquiries, has been received. By to-day's mail I forward to you the 1st and 2d Annual Reports of the State Board, in which is the law creating the Board, and all the laws relating to the public health. I also send you a copy of the Sanitary Visitor containing a bill which passed both houses of the Legislature and was vetoed by the Governor. This bill embodies the improvements we would suggest. Our bill originally, however, contained a clause making it necessary to get a permit from a health officer before any human body could be buried. This permit was to be given only after the health officer had received the physician's certificate as to the cause of death. Any one burying a human body without this permit was to be subjected to a heavy fine or imprisonment, or both. The bill was amended by striking out this clause before it could pass.

We have no compulsory notification of infection. The appropriation to the health department is only $1,500. It should be at least $5,000.

We have no local or county boards. No such officer as a health officer is recognized in the statutes. A few towns have, however, appointed health officers, but there is no legal way of paying them.

Very respectfully,

C. L. ALLEN,

Secretary.

BRYN MAWR, PA., Sept. 14, 1889.

Dr. C. L. Allen, Rutland, Vt., Sec. State Board of Health:

DEAR SIR—Will you kindly inform me as to your State laws, as far as they relate to vital statistics and regulations of medical practice? For cities, if there is no State law. Concise outline of laws; when enacted; how enforced; practical results as to enforcement and accuracy. Awaiting the courtesy of your reply, believe me,

Yours truly,

G. E. ABBOT,

Ph. D., M. D.

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STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, March 15, 1889.

DEAR SIR—Your letter inquiring about our State laws duly received.

I forward to you by to-day's mail the 1st and 2d Annual Reports of our Board, which contain all the laws relating to medical practice, etc. Also I send a copy of the Sanitary Visitor containing a bill which passed both branches of the Legislature but was vetoed by the Governor.

The registration law has been in force for more than 30 years, and registrations printed, but the statistics gathered have been very imperfect.

The Board of Health has been in existence only two years, and has had very little power to do good.

The law regulating the practice of medicine has been on the statute book for a dozen years, but really amounts to but little.

Very respectfully,

C. L. ALLEN,

Secretary.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

CONCORD, N. H., April 6, 1889.

DEAR SIR—Is there any law in your State relating to the sanitary construction of school-houses,—that is, defining how ventilation, lighting, heating, etc., shall be provided for? If so, will you kindly give me a brief outline of the law, stating the year of its enactment. An immediate reply is respectfully solicited.

Very respectfully,

IRVING A. WATSON,

Secretary.

Dr. C. L. ALLEN, Sec. State Board of Health, Rutland, Vt.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, April 8, 1889.

DEAR DOCTOR—Yours of the 6th, inquiring as to laws relating to the sanitary construction of school houses, duly received. I am not aware that there has ever been a law in this State relating in any way to this subject. Two years ago our board issued the accompanying circular, which I enclose, as showing our ideas of what the laws ought to be. Very respectfully,

C. L. ALLEN,

Secretary.

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QUARTERLY MEETING.

The State Board of Health met at the Van Ness House in Burlington, pursuant to notice on Thursday, April 11th, 1889.

Of the many subjects presented to the Board for its consideration, the greater part consisted of complaints which really ought to have been attended to by the selectmen of the several towns from which they came. The State Board has no authority except in the actual presence of "contagious and epidemic diseases," and then only tn a clumsy and circuitous manner. Of course the Board is anxious to have all causes of complaint removed, and will use all its influence for that purpose.

A lengthy communication was received calling the attention of the Board to the subject of feather beds. It is an undoubted fact that feathers will accumulate and retain the exhalations of even healthy persons to such an extent as to render them liable to cause disease. Much more will the exhalations from sick persons contaminate them with disease germs. It is the opinion of the Board that feather beds should not be used. Most certainly invalids and sick persons should not be allowed to lie on feathers, not merely on account of the risk of contamination for others, but for the injurious effect upon the patients themselves. But since feather beds will be used, to a greater or less extent, it is important that they should be kept in as good a condition as possible. If in constant use they should be cleansed or renovated every year or two at the farthest.

Steam, under a pressure of 25 pounds, will destroy the most persistent germs and spores, and is, therefore, next to fire, the best disinfectant. Even at ordinary pressure, steam will kill nearly all varieties of disease germs. Of course, then, steam is the best means of cleansing or renovating feathers.

Considerable conversation ensued in regard to the Sanitary Visitor, the periodical published by the Board, the first number of which was issued in January. It would be very desirable to issue the Visitor monthly, but since it is sent gratuitously to every one for the public good, one cent postage has to be prepaid on every number, instead of one cent on every pound, as upon newspapers. This expense for postage, in addition to the cost of printing, would make the expense above the appropriation for the Board for the year.

Adjourned.

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NORTH DANVILLE, VT., April 8, 1889.

To the Gentlemen comprising the Board of Health:

GENTS—I noticed in the Caledonia News your notice of meeting at the Van Ness House, Burlington, Vt., on the 11th day of April, requesting if any one had anything to bring to their notice, they would do so by writing.

I have been engaged more or less of my time for the last seven years in renovating or, if otherwise spoken, cleansing feather beds, and I have frequently told parties owning beds that if our Board of Health were knowing to the condition of the feathers in those ticks, it would be made a matter of compulsion for them to be cleansed once in three or four years, by steam, for this reason: Those ticks are nearly air tight, and they cannot get from the feathers the poison, substance or matter that is taken up by absorption short of applying steam. This I learn from women who have taken pains to take out feathers and air and wash ticks. I have taken such and applied steam to them, and the case of fever would be noticeable by smell as much so as it would be in the room where the sick person was.

I have called the attention of three practicing physicians to such ticks and they all gave as their opinion that there was unhealthful odor from them, and no doubt in many instances disease. I am now doing such work as cleansing feather beds and would like to have the matter investigated. I assure you, gentlemen, I have often been forced to vomit by inhaling the odor. I am told by men of knowledge that the steam destroyed the contagion, and that was all saved me from taking disease. I am stating facts. Also Dr. Kendrick, Hyde Park, Vt., after witnessing the outcome of odor by steam, said to me that it was his candid opinion that there were many cases of sickness in the human race that originated from foul beds, and they knew not where it came from. It is well known that a bed, for instance, on which there had been a case of small-pox would vaccinate a whole township of people All other diseases charge the feathers in the same proportion, and where there is no disease, they are filled with foul matter from perspiration. I have witnessed so much of it in my experience that I cannot refrain from laying the facts before you. If you choose to know me or of me you can inquire of Fred. Johonnott, Burlington, Vt. Thirty years ago I was well acquainted with T. E. Wales, lawyer. He no doubt has forgotten me. If you gents should notice the foregoing, and should employ any party to do anything in the line of cleansing, please remember me. My residence is in Warren, Vt. I shall return home in a week or ten days. If you should wish to write me, direct to the last named place.

Truly, etc.

S. C. LADUE.

Gentlemen, I am little anxious to know what the Board thinks of this, therefore I inclose a stamp. I have not represented the filthiness of them too high, nor high enough. I often have to use disinfectants.

To this the following answer was returned:

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STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, May 8, 1889.

Mr. S. C. LaDue:

DEAR SIR—Your communication in regard to feather beds was duly received at the Van Ness House in Burlington and laid before the Board at its quarterly meeting.

I inclose a slip, cut from the Burlington Free Press, which contains the expression of the opinion of the Board upon the subject.

Very respectfully,

C. L. ALLEN,

Secretary.

SPECIAL MEETING OF THE BOARD.

Pursuant to a call of the President, the Board met at Montpelier on the 20th of June, 1889.

The special cause for this meeting was for a consultation with the Sergeant-at-Arms, made necessary by the following act of the Legislature:

No. 255.—AN ACT TO IMPROVE THE VENTILATION OF THE STATE HOUSE.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. The Sergeant-at-Arms and the State Board of Health are hereby directed and empowered to inquire into and examine different systems of ventilation with a view of determining which is the best and most efficient as well as economical, and having satisfied themselves upon these points, shall introduce such system into the State House.

In addition to the ventilation of the supreme court room they shall so arrange the light coming into the room as shall be satisfactory to the majority of the judges of the court.

SEC 2. The whole work provided for in section one of this act shall be thoroughly done and entirely completed on or before the first day of August, 1890.

Approved November 20, 1888.

It was found that all the rooms on the ground floor of the State House needed ventilation. There is no means of getting air into or out of those rooms except by the doors or windows. Some of the rooms are occupied only for a short time each day and then

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only by a few. Some of them are occupied the greater part of the time each day, or by a great many at a time, hence really need ventilation. But the floors are built upon the solid rock, and all the partitions are of pure masonry.

Mr. Hopkins, an expert in ventilation, from Bridgeport, Conn., was there by request of the Sergeant-at-Arms, taking the dimensions and relative positions of the rooms and making a thorough examination, preparatory to submitting plans and specifications, which he promised to have in readiness as soon as possible.

A letter, with accompanying papers, having been received by the Secretary, from a committee of the National Association of General Baggage Agents, it was laid before the board. Among the papers was a set of rules in regard to the transportation of dead bodies. These rules were thoroughly and carefully canvassed. Some, especially rule 2, were considered unnecessarily severe, and almost or quite prohibitory on account of the expense. Nevertheless it was thought best, on the whole, to concur in them, on account of uniformity.

Word was received by the board that at Williamstown on the Saturday night before a young man had died of smallpox or varioloid. The body had been buried before morning. The history given was that a student had come from out of town, had stopped at a boarding house, and was taken sick about two weeks before. At first it was called rheumatic fever. His parents were notified and were with him. When suspicions of smallpox were aroused, the patient and parents were removed to a small house in the outskirts of the town, but still within the limits of the highway, provisions, etc., being furnished by the selectmen. About forty or fifty persons had been exposed, and had been vaccinated, after the man died.

Dr. Chesmore and Dr. Hamilton immediately visited Williamstown and reported that it was quite doubtful if it had been a case of smallpox or varioloid, and that at any rate everything was being done that was possible to prevent any spread of the disease.

Adjourned.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

CONCORD, N. H., July 18, 1889.

C. L. Allen, M. D., Sec. State Board of Health, Rutland, Vt.

DEAR DOCTOR—Complaint is made to this Board by citizens of West Stewartstown, N. H., that a slaughter-house located at Canaan, Vt., is a public nuisance to the people of West Stewartstown. The said slaughter-house is owned or operated by one Joseph Gertin of Stewartstown, N. H. As the nuisance is in Vermont it is beyond the jurisdiction of the New Hampshire Board of Health. We would respectfully request that you notify the Board of Health or the selectmen of Canaan, Vt., to cause the said nuisance to be abated. By so doing you will confer a favor upon this Board, as well as upon the complainants.

Very truly yours,
IRVING A. WATSON,
Secretary.

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STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, VT., July 22, 1889.

To the Selectmen of Canaan:

GENTLEMEN—The State Board of Health of New Hampshire has complained to our Board of a nuisance, a slaughter-house, situated in your town, which is offensive to the citizens of Stewartstown, in that State.

Your attention is called to Sec. 3923 of the Revised Laws. Of course, the "approbation in writing" would be given only upon condition that the business should be carried on in such a manner as not to be offensive to the neighborhood, and especially to towns in another State.

Did Mr. Gertin have such "approbation in writing?" If so, does he comply with these conditions?

Your attention is also called to Sec. 3924, Revised Laws. "The selectmen *shall* make such regulations, etc." If the slaughter-house is in a condition which renders it a "source of filth," or "injurious to public health," in fact a "nuisance" it should be abated, even if those who own or operate it did get the required "approbation."

I enclose a copy of the regulations promulgated by the State Board of Health of Vermont. If your body, in a regular meeting, will vote to adopt these regulations as *the* regulations which you are required by law to make, you will have all such cases in your control.

If you wish more of the "regulations" (Circular No. 5) for distribution in town, I can furnish free of charge any number. You can write upon each as upon the one enclosed.

I wish you would attend to this matter at once, and inform me as to the result.

Very respectfully,

C. L. ALLEN,

Secretary.

Many letters like the following have been received and answered in a similar manner:

WINDSOR, VT., August 2, 1889.

Dr. Chas. L. Allen:

DEAR SIR—Dr. Chesmore was here this week and wished me to act as health officer in this town. I now write you asking if there are any cards for notices of disease, to be placed on the house where the disease is located. They have them in Massachusetts. Also, are there any blanks for keeping a record of births, deaths, and the number and kinds of contagious diseases in town during the year? Please send me Nos. 1 and 2 of the circulars which have been issued by you. I think this a move in the right direction and wish to do my share in helping on the good work.

Very truly,

J. S. BREWSTER.

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STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, August 13, 1889.

DEAR DOCTOR—No cards, placards or blanks have been issued by the State Board of Health, or instructions to health officers for the simple reason that no such officer is recognized by law.

If you have preserved the first (January) number of the Sanitary Visitor you will see, by the bill which the governor vetoed, what the State Board intended to do and have done.

We shall try again next year, and hope for better success. Meantime, if you can suggest any improvement in the bill we shall be very glad to receive the suggestion.

Circular No. 1 was addressed to selectmen and is out of print. I send you Circular No. 2.

Very respectfully,

C. L. ALLEN,

Secretary.

The following correspondence will explain itself :

BOSTON & ALBANY R. R. CO., PASSENGER DEPT.
A. S. HANSON, General Passenger Agent,
BOSTON, May 8th, 1889.

Dr. C. L. Allen, Sec. State Board of Health, Rutland, Vt. :

DEAR SIR—I enclose you a letter herewith signed by several general baggage agents in your State, which will explain itself. I also enclose you Mr. Quick's circular letter for February 15th, (in which is included the proposed rules), a sample of the undertaker's certificate along with a copy of the transit permit as proposed under the new rules. When you reply to Mr. Quick, will you kindly send me a copy of your reply for my information as a member of the committee ?

Yours very truly.

J. C. LENIX,

G. B. A.

BOSTON, MASS., March 21st, 1889.

Dr. C. L. Allen, Sec. State Board of Health, Rutland, Vt. :

DEAR SIR—We, the undersigned general baggage agents of the railways interested in the matter of transporting dead bodies in the State of Vermont, would respectfully call your attention to the corrected rules and samples of forms approved at the San Francisco meeting of the National Association of General Baggage Agents, of which we are members.

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You will note there have been several changes made in the proposed rules, since they were submitted to the State Board of Health of your State, and we would therefore request they all be submitted again for approval; and that the proposed changes may be better understood, we enclose you that part of the record of our proceedings which gives the full report of the committee.

There is seemingly but one sentiment among health officers as well as railroad men, that the interests of the public health demand uniformity in the matter of transporting the bodies of the dead, yet this is not an easy thing to accomplish unless each State Board, and all for that matter, will yield a point in the interests of harmony, and after due consideration of all suggestions offered, we believe the rules now proposed cover all the essential features, and embody the sentiments of a larger proportion of those with whom we have corresponded, and harmonize the conflicting opinions as near as it is possible, until the several State Boards of Health can get nearer together, and public sentiment demands some standard of authority by which undertakers are examined as to their competency in the matter of preparing dead bodies for shipment.

In the mean time, we think it advisable to make the start in this territory, believing we will soon be working under uniform rules throughout the United States and Canada. It is desirable, however, to accomplish this with as little friction as possible, and we would therefore suggest they go into effect about September first of this year. Will this meet the approval of your Board? We suggest this date as it will give ample time to give notice in the larger towns and cities and to all undertakers.

Will you kindly lay the matter before the State Board of Health for approval, and will you advise Mr. J. E. Quick, Secretary, Detroit, Mich., of the result of your deliberations as soon as convenient. We would add that similar letters are being sent to the several State Boards of Health.

HERBERT BRAINERD, G. B. A., C. V. Ry.
C. S. PEASE, G. B. A., D. & H. C. Co.'s R. Rs.

NATIONAL ASSOCIATION OF GENERAL BAGGAGE AGENTS,
OFFICE OF SECRETARY,
DETROIT, MICH., February 15th, 1889.

DEAR SIR—At meeting of National Association of General Baggage Agents, held at San Francisco, January 16th, 1889, the following resolution was adopted, viz.:

Resolved, That the Secretary furnish each member of this Association with printed copies of memorandum of rules relative to the transportation of dead bodies, as approved at this meeting, and that each general baggage agent present same to the Board of Health concerned in the territory traversed by his line, as desirable for general adoption, to the end that all abuses attending the transportation of dead bodies may be avoided, and the interest of all concerned be thereby promoted, and that said Board of Health

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be requested to state in writing if they will conform thereto, or if not, to specify in what particulars, and to make any suggestions that may occur to them, and that each general baggage agent report the result of his correspondence at the next meeting of this Association.

In compliance with above, rules as approved attached hereto. Please refer them as above.

Respectfully,

J. E. QUICK,
Secretary.

RULES FOR TRANSPORTATION OF DEAD BODIES.

RULE 1. The transportation of bodies of persons dead of small-pox, Asiatic cholera, leprosy, typhus fever, or yellow fever, is absolutely forbidden.

RULE 2 The bodies of those who have died of diphtheria, anthrax, scarlet fever, puerperal fever, erysipelas, measles, and other contagious, infectious, or communicable diseases must be wrapped in a sheet thoroughly saturated with a strong solution of bi-chloride of mercury, in the proportion of one ounce of bi-chloride of mercury to a gallon of w..ter; and encased in an air-tight, zinc, tin, copper, or lead lined coffin, or in an air-tight iron casket, hermetically sealed, and all enclosed in a strong, tight wooden box; or the body must be prepared for shipment by being wrapped in a sheet and disinfected by solution of bi-chloride of mercury as above, and placed in a strong coffin or casket, and placed in a hermetically sealed (soldered) zinc, copper, or tin case, and all enclosed in a strong outside wooden box of material not less than one inch and a half thick.

RULE 3. In cases of contagious, infectious, or communicable diseases, the body must not be accompanied by persons who, or articles which, have been exposed to the infection of the disease. And in addition to permit from Board of Health or proper health authority, agents will require an affidavit from the shipping undertaker, stating how body has been prepared and kind of coffin or casket used, which must be in conformity with rule 2.

RULE 4. The bodies dead of diseases that are not contagious, infectious, or communicable, may be received for transportation to local points in same State, when encased in a sound coffin or metalic case, and enclosed in a strong wooden box, securely fastened so it may be safely handled. But when it is proposed to transport them out of the State to an inter-state point (unless time required for transportation from the initial point to destination does not exceed 18 hours) they must be encased in an air-tight zine, tin, copper, or lead lined coffin, or an air-tight iron casket, or a strong coffin or casket encased in a hermetically sealed (soldered) zinc, copper, or

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tin case, and all enclosed in a strong outside wooden box of material not less than one inch thick. In all cases the outside box must be provided with four iron chest handles.

RULE 5. Every dead body must be accompanied by a person in charge who must be provided with a ticket, and also present a full first-class ticket marked "corpse," and a transit permit from Board of Health, or proper health authority, giving permission for the removal, and showing name of deceased, age, place of death, cause of death (and if of a contagious or infectious nature), the point to which it is to be shipped, medical attendant, and name of undertaker.

RULE 6. The transit permits must be made with a stub to be retained by the person issuing it, the original permit must accompany the body to destination, and two coupons; the first coupon to be detached by agent at initial point and sent to general baggage agent, and the second coupon, by the last train baggageman. The stub permit, and coupons, must be numbered so the one will refer to the other, and on back of permit will be a space for undertaker's affidavit, to be used in cases of contagious or infectious diseases as required by rules 2 and 3.

RULE 7. The box containing corpse must be plainly marked with paster, showing name of deceased, place of death, cause of death, the point to which it is to be shipped, number of transit permit issued in connection, and name of person in charge of the remains. There must also be blank spaces at bottom of paster for station agent at initial point, to fill in the form and number of passage ticket, wherefrom, whereto, and route to destination of such ticket.

RULE 8. It is intended that no dead body shall be moved which may be the means of spreading disease, therefore, all disinterred bodies, dead from any disease or cause, will be treated as infectious and dangerous to public health, and will not be accepted for transportation unless said removal has been approved by the State Board of Health, and the consent of the health authority of the locality to which the corpse is consigned, has first been obtained, and the disinterred remains enclosed in a hermetically sealed (soldered) zinc, tin, or copper lined coffin or box, or a box encased in hermetically sealed (soldered) zinc, tin, or copper cases.

NOTE.—The approval of the State Board of Health for disinterment must be attached to the transit permit.

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FORM OF PASTER.

CERTIFICATE OF UNDERTAKER.

. . . . . Date, ... 18 . .
Name of deceased, ...
Place of death, ...
Cause of death, ...
For interment at . . . . . .
Name of person in charge, ...
Number of transit permit, ...
Signed . . . . . Undertaker . .
. . . . . P. O. Address,

The above to be filled out by undertaker and attached to box containing corpse.

From . . . . . to . . . . . State . . . . .
Number of ticket, ... Form No. of ticket, ...
From . . . . . to . . . . . .
Via . . . . . R. R. . . . . Junction
Via . . . . . R. R. . . . . Junction
Via . . . . . R. R. . . . . Junction
Via . . . . . R. R. . . . . Junction
Signed . . . . . Station Agent . .

The above to be filled out by Agent or Baggageman at the initial point, showing description of ticket, exact route, and via what junction points the ticket reads, which is held by passenger in charge of corpse.

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No......*Date*.....189

TRANSIT.

"Stub to be retained by official issuing Permit."

TRANSIT PERMIT.

1. *Issued to*.....
2. *Name of Deceased*.....
[If a minor, give parents' names.]
.....
3. *Interment at*.....
4. *Date of Death*.....*Age*...
5. *Place of Death*.....
6. *Cause of Death*.....
7. *Certified by*.....
.....*M. D.*

FRONT.

☞ This permit must in all cases accompany the body to its destination.

No.....

TRANSIT PERMIT.

In the town of.....

County of.....

.....18

Permission is hereby given to remove the remains of.....

aged.....*who died at*.....

[City, or Township and County.]

on the.....*day of*.....18 ; *the cause of death being*.....

.....*which is a*.....*disease, and a Transit Permit being*

asked for burial at.....*in the State of*.....

Name of Undertaker or Person in charge of the Transit. } *Signed by*.....

.....

Name of Medical Attendant. } .....[Official title.]

.....[P. O. Address.]

COUPON No. TWO TO TRANSIT PERMIT No.....

FOR THE BODY OF

.....*who died at*.....

This Coupon will be detached by Train or Boat Baggageman of terminal line and sent to General Baggage Agent. See Back.

COUPON No. ONE TO TRANSIT PERMIT No.....

FOR THE BODY OF

.....*who died at*.....

This Coupon will be detached by Agent or Station or Baggageman at initial point and sent to General Baggage Agent. [See Back.]

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BACK.

State of Vermont, ... 18

I Hereby Certify, That the body of ..... *named in this transit permit has been prepared by me for transportation by being* .....

.....

(Signed) ..... *Undertaker.*

State of ..... }
County of ..... } *On this* ..... *day of* ..... *A. D.* 18

before me, a ..... *(Notary Public, Justice of the Peace,) in and for the County and State aforesaid, personally appeared* .....

to me known, and made oath and says that all of the statements contained in the foregoing are true.

Sworn and Subscribed to before me this ..... *day of* ..... *A. D.* 18

[SEAL.] .....

.....

Undertaker's Affidavit—In case of Infectious or Contagious Disease.

SECOND COUPON. } *taken at* ..... *By* .....

FIRST COUPON. } *Taken at* ..... *By* .....

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STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, August 8th, 1889.

J. E. Quick, Secretary N. A. of G. B. Agents:

SIR—I have the honor to inform you that the Vermont State Board of Health approves of the "Rules relative to the Transportation of Dead Bodies" as formulated at the meeting of the National Association of General Baggage Agents, held at San Francisco, January 16th, 1889. As far as possible the Board will use its influence to have these rules enforced.

The Board also cordially endorses the suggestion that undertakers should be required to pass an appropriate examination, and will endeavor to have a law passed in this State to that effect.

Very respectfully,

CHARLES L. ALLEN,

Secretary.

The following letter was sent to every town clerk in the State. Accompanying the letter were sent from three to twenty sets of blanks, according to the population of the different towns, for distribution among undertakers.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

To the Town Clerk:

The National Association of General Baggage Agents having had the subject under discussion for a year or two past at the meetings in New York, San Francisco and Detroit, made a set of rules for the transportation of dead bodies which should be the guide for railroads and other transportation companies in the United States and Canada. They are the result of conferences with the American Public Health Association, the national conference of State Boards of Health, the various State and provincial boards of health, health officers of many prominent cities, the International Association of Funeral Directors, and the surgeons-in-chief of many railroads. Some have thought the second rule is unnecessarily strict, but nearly if not all have agreed to carry them out.

Having been approved by the State Board of Health of Vermont they are sent to the town clerks for distribution among undertakers. One copy, however, must always be retained by the town clerk for reference and consultation in his office. Appropriate blanks are also sent to town clerks, who will notify undertakers and those who wish to remove dead bodies to other towns or states, that blanks may be obtained at the town clerk's office.

More blanks will be furnished, at any time, on application to the Secretary of the State Board of Health, Rutland.

CHARLES L. ALLEN,

Secretary.

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BOARD OF HEALTH,
ALAMEDA, CAL., August 16th, 1889.

Secretary State Board of Health, Montpelier, Vt.:

DEAR SIR—I send you by to-day's mail the first Annual Report of the Board of Health of the City of Alemeda, California, for the year 1888.

You will see from it that our young city, on these extreme western confines of country, is intent on maintaining the best possible sanitary conditions.

We realize, however, that a knowledge of what is being done in a sanitary way in other and older States and cities of our land will help us in our efforts to secure proper public sanitation here.

To this end, we desire to exchange publications with all State and Municipal Boards of Health, and other sanitary organizations. Will your Board of Health do our Board of Health of the City of Alameda, Cal., the favor to put it on your exchange list, and to send us, at your convenience, for our sanitary library, such of the publications of your Board as you may have on hand for exchange; and hereafter to forward us such of your future publications as are intended for exchange and oblige,

Yours very truly,

JNO. T. McLEAN, M. D.,
Health Officer.

BARRE, VT., August 27th, 1889.

C. L. Allen, M. D.:

DEAR SIR—We are about laying sewers in our village. Sewers to be of Akron tile, joints cemented with Rosedale cement. Has the State Board of Health inquired into the best manner of laying sewers? Ought the joints to be cemented water tight,—that is, so that water cannot flow *into* the *tile*, nor filth ooze through the joints? What will be the probable effect on the general health of our village, if not laid tight? A reply *this week* will greatly oblige.

O. B. BOYCE,
H. E. PACKER,
WM. JACKMAN. } Investigating Committee.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

GENTLEMEN—Your letter of the 27th duly received. In answer, would say that by all means the joints of sewer pipes should be cemented water tight. If the soil needs drainage, the loose jointed brick tile might be used by the side of the sewer pipe or anywhere thought best. The Akron tiles are excellent but even those are

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better for being completely covered by good cement. Rosendale cement is very good. There should be no possibility of sewage oozing out into the soil, for this will contaminate the soil and render the neighborhood insalubrious.

If you have time, I would advise you to enclose ten cents for postage to C. W. Chancellor, M. D., Secretary State Board of Health, Baltimore, Md., with a request that he send you his report on "Improved Methods of Sewage Disposal."

Very respectfully.

C. L. ALLEN,

Secretary.

ESSEX JUNCTION, VT., August 27th, 1889.

C. L. Allen, M. D., Rutland, Vt.:

DEAR SIR—I want to know if the "State Board of Health" has power vested in them to abate the contemptible nuisance of having live hogs carried through this State for the sole benefit of corporations and parties doing business outside of the State, and greatly to the disgust and detrimental to the health of all.

The "hog trains" are allowed to stand here from ten minutes to one hour and five minutes, keeping up a continuous squealing, fighting, and emitting such an unbearable odor that it is utterly impossible to partake of food, and at times producing nausea.

There are many complaints from the people to me and I write for information.

Now, if there is any law to protect the people from this most detestable nuisance, and the "State Board of Health" has the power, I hope they will please do so at once.

Very respectfully,

C. C. WAKEFIELD.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

DEAR DOCTOR—Yours of the 27th received. The State Board of Health has absolutely no authority in such cases.

But if you will consult Sec. 3924, Revised Laws, you will see that the selectmen of the town have complete authority.

Very respectfully,

C. L. ALLEN,

Secretary.

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DANVILLE, Sept. 1, 1888.

C. L. Allen, M. D.:

DEAR DOCTOR—We have had some severe cases of diphtheria in one family in town—brought over from Barre—and the selectmen, with my assistance, have succeeded, so far, in confining it to that family.

They have been allowed to go out on the street and about their work, but have been forbidden to attend any public meeting, or to frequent any public place. But in spite of this order, they insist upon going into meetings, public gatherings in the town hall, etc.

The selectmen desire me to inquire of you as to their *authority* to enforce their order upon them, and as to what is the best method to pursue.

Yours in haste,

J. S. DURANT.

P. S.—Please reply by Monday's mail, if possible.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, Sept. 3d, 1888.

J. S. Durant, M. D.:

DEAR DOCTOR—Your letter of Sept. 1st received this morning. Let the selectmen adopt the accompanying "Regulations" as *the* regulations which they are obliged to make by Sec. 3924, Revised Laws. Then any "person violating such regulations shall forfeit not more than $100."

I send you by mail some circulars on diphtheria, which you can distribute among the neighbors of the family in which diphtheria is prevailing.

I also send some "Regulations" for the selectmen to distribute, after writing across each as I have the one enclosed.

Let me hear how the matter terminates.

If you wish any more circulars of either kind write for them.

Very respectfully,

C. L. ALLEN,
Secretary.

MARSHFIELD, VT., Sept. 8th, 1888.

Mr. Allen:

DEAR SIR—We have got two hard cases of diphtheria in town; would like a few copies of your Regulations.

Yours,

M. R. BLISS,
Selectman.

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EAST FAIRFIELD, VT., Sept. 8th, 1888.

Dr. C. L. Allen, Rutland, Vt.:

DEAR SIR—Enclosed please find ten cents in stamps. Will you favor me by return mail with a copy of the Regulations for the preservation of public health promulgated by the State Board of Health, of which you are secretary—the same sent to physicians throughout the State.

Diphtheria has broken out here and some parties persist in violating these regulations. An early reply will greatly oblige.

I remain, sir, yours truly,

M. S. GATES.

P. S.—Also the prescriptions and formula for disinfectants accompanying them.

On the 11th of September, 1888, the Selectmen of West Rutland issued a circular containing the first page of Circular No. 4, issued by the State Board of Health, to which was added the following:

Whereas, diphtheria has made its appearance in our town and is liable to spread unless proper measures are used to prevent, it is hereby directed by the board of selectmen that each and every owner or tenant of any house, shall see that all cellars, barns, outhouses, cess pools and all filth about the same are immediately cleansed and proper disinfectants used, viz.: sulphate of iron, chloride of lime, etc. Any householder in whose dwelling there shall occur a case of diphtheria shall immediately notify the selectmen or health officer.

All persons are strictly forbidden from entering any house where there is a case of diphtheria without permission of one of the board of selectmen or health officer. All members of a family where there is a case of diphtheria are forbidden from entering any other house, steam or horse-car, church or school, or place of public amusement, without consent of attending physician or selectmen. There shall be no public funeral of a person dying with diphtheria.

PER ORDER SELECTMEN.

West Rutland, Sept. 11, 1888.

JOHNSON, VT., Sept. 11, 1888.

Dr. C. L. Allen:

DEAR DOCTOR—We are having an epidemic of diphtheria; commenced about one week ago. Have been about a dozen cases in all; three fatal; some very sick now. We are trying to quarantine it. Will you please send me several copies of the circular published by the board on diphtheria, for distribution about town.

Respectfully yours,

JOEL ALLEN, M. D.

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Several copies of Circulars No. 4 and No 5 were sent to Dr. Allen, and to the Selectmen, who were also written in regard to their duties in the matter.

BARTON, Oct. 3d, 1888.

DEAR SIR—In accordance with the regulations contained in Circular No. 5, I report one case of scarlet fever, in the family of Mr. W. Miles; also two cases of typhoid fever, one in Mr. G. Drew's family, and one in Mr. H. Phillips' family.

DR. M. F. PRIME,

Health Officer, Barton, Vt.

MONTGOMERY, VT., Oct. 8, 1888.

C. L Allen, M. D., Secretary State Board of Health:

DEAR DOCTOR—One case of diphtheria in the family of Giles Sheldon. I quarantined the family to-day.

Respectfully,

B. W. DAVIS.

MONTGOMERY, VT., Oct. 15, 1888.

C. L. Allen, M. D., Rutland, Vt.:

DEAR DOCTOR—There are four cases of diphtheria in the family of Rodney Dodge and one in the family of Pat. Hayes (it is a son of Dodge). These patients live back in the woods, about half a mile from neighbors, and about seven miles from any family where there has been any diphtheria for a year or more. How they got it I cannot tell. Dodge has two other small children at home that are not sick as yet.

Respectfully yours,

B. W. DAVIS.

MONTGOMERY, VT., Nov. 10, 1888.

Dr. C. L. Allen:

DEAR SIR—Another case of diphtheria at Mitchel Baker's, this village.

Respectfully yours,

B. W. DAVIS.

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ST. ALBANS, VT., Nov. 22d, 1888.

C. L. Allen, M. D., Rutland, Vt., Secretary State Board of Health:

DEAR SIR—A case of diphtheria reported to me by Dr. Densmore, on Messenger St., bad, but likely to recover. Four more cases reported last night by Dr. Sherwood, three on Smith St., bad; one since died; one on Elm St., bad, but likely to recover. I had two cases reported to me by Dr. Jennie, in September, in location known as the Blocks. They were very light and I didn't report them. I would like a few of the State Board of Health regulations.

Respectfully,

G. W. LEPPER,

Health Officer for Village.

ST. ALBANS, VT., Dec. 11th, 1888.

C. L. Allen, M. D., Rutland, Vt.:

DEAR SIR—Another case of diphtheria reported to me by Dr. Densmore, on High street, which has resulted fatally. No other case known as yet in corporation.

Respectfully,

G. W. LEPPER,

Health Officer for Corporation.

ST. ALBANS, VT., Dec. 17th, 1888.

C. L. Allen, M. D., Rutland, Vt.:

DEAR SIR—Two more cases diphtheria reported to me last week on High street, by Dr. Robertson (in same family as reported last), both of which heve died. Another case (very light), reported by Dr. Robertson, on Foundry street.

Respectfully,

G. W. LEPPER,

Health Officer for Corporation.

ST. ALBANS, VT., Dec. 28th, 1888.

C. L. Allen, M. D., Rutland, Vt.:

DEAR SIR—A case of diphtheria reported to me by Dr. Sherwood, and two others reported by Dr. Waugh, all on South Main street. None as yet dangerous.

Respectfully,

G. W. LEPPER,

Health Officer for Corporation.

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ALBURGH, VT., Oct. 29th, 1888.

Dr. C. L. Allen, Secretary State Board of Health :

DEAR SIR—There are several cases of diphtheria in this town; one death this morning. We are using our best judgment in trying to prevent its spreading, but it seems to be gaining. Two additional cases reported this morning. I report the facts to you for such action as you think best in the matter. I do not think our physicians are as careful as they should be. I am afraid of an epidemic. If you think best, perhaps it would be best for you to visit the town and give such instructions as the investigation may suggest. I think a talk with our physicians would materially help in the matter, and perhaps also a talk with the selectmen may do good. Awaiting your early answer, I am

Respectfully yours,

H. L. SOWLES,

Chairman Selectmen.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, VT., Nov. 8th, 1888.

H. L. Sowles, Esq., Chairman Selectmen, Alburgh, Vt.:

DEAR SIR—On my return from an extended trip west I find your letter of Oct. 29th. It has been so long since that I wish to hear again.

If your board adopted the "Regulations promulgated by the State Board of Health," as I recommended last winter, you have the whole control in your own hands, even over the physicians if you think they do not do their duty.

If the disease is spreading you had better write to Dr. J. H. Hamilton of Richford, Vt., to make you a visit. He is a member of the State Board and can go over more easily than I can.

Very respectfully,

C. L. ALLEN,

Secretary.

ST. ALBANS, VT., Jan. 17th, 1889.

C. L. Allen, M. D., Rutland, Vt.:

DEAR SIR—In the last week two cases of diphtheria have been reported to me; One on Main street by Dr. Sherwood, the other on Foundry street, by Dr. Densmore. Both cases have died.

Respectfully,

G. W. LEPPER,

Health Officer for Corporation.

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MONTGOMERY, VT., Jan. 12, 1889.

C. L. Allen, M. D., Rutland, Vt.:

There is, at this writing, diphtheria in the families of A. P. J. Richardson, Mr. Chas. Touchette, Mr. Joseph Lumbra, Mr. Emery Bonnett and Mrs. Frank Buskey. The last four families caught the disease from a family that lives near them who had it, but did not call a physician because they were afraid they would be quarantined. One in that family died with croup.

Respectfully,

B. W. DAVIS.

VERGENNES, VT., Jan. 19, 1889.

Dr. C. L. Allen, Rutland, Vt.:

DEAR DOCTOR—Diphtheria in the family of Albert Perry of Ferrisburgh has caused five deaths. Five others are sick—some convalescing.

Mr. Freeman Hatch, selectman, suggests that you might wish to examine the premises and would send some circulars for distribution in the neighborhood, giving best methods of disinfection, and giving an idea of the duties and power of selectmen.

If the Board of Health wishes to examine the locality, I should be pleased to take their representative to Mr. Perry's from Vergennes.

Respectfully,

GEO. F. B. WILLARD.

The Secretary visited Vergennes January 23d, and went with Dr. Willard to the house of Mr. Perry in Ferrisburgh. The house, one story high, eighteen feet wide and twenty-one feet long, had contained the man and his wife, wife's mother and ten children. No other house was within many rods of it. One of the children had visited at a neighbor's where they had sore throat, but were not sick enough to have a physician. These latter had been exposed to genuine diphtheria. Of course when diphtheria got into such a house, in the winter, it must prove fatal to some, although the house and surroundings are in as good condition as possible. Circulars were left with the selectmen and with the physician. Strict quarantine was enforced and no other cases occurred.

ST. ALBANS, VT., Feb. 16, 1889.

C. L. Allen, M. D., Rutland, Vt.:

SIR—Another case of diphtheria reported to me by Dr. Densmore, on Messenger St., which terminated fatally.

GEO. W. LEPPER,

Health Officer for Corporation.

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RICHFORD, VT., March 6th, 1889.

C. L. Allen, M. D.:

MY DEAR DR.—I believe I have reported to you that measles were prevailing to some extent in Richford. It seems that at the present time it is somewhat under control. There have been two deaths.

You may still send all documents to me as health officer of Richford until further notice. Dr. Prime has not yet been appointed; I don't know as he will be.

Very truly yours,

J. H. HAMILTON.

ST. ALBANS, VT., March 12th, 1889.

C. L. Allen, M. D., Rutland, Vt.:

DEAR SIR—Another case of diphtheria, reported to me by Dr. Jennie, on Pine street.

I understand there have been several cases this winter which have not been reported to the health officer by some of the doctors in attendance.

I would like to inquire if the State Board of Health understand (or know) if a corporation or town is liable to parties for goods ordered destroyed to get rid of infection? If you will kindly advise me in this matter, I shall be greatly obliged.

Yours, etc.,

G. W. LEPPER,

Health Officer for Corporation.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, VT., March 13, 1889.

DEAR SIR—Your report of March 12 received, as have several before. It contains exactly the information which we want from all the towns. You will see by the accompanying act, which was vetoed by the Governor, what the State Board wanted to do.

I presume that the pay for goods ordered to be destroyed by proper authorities could be collected by common law.

By Sec. 3 we expressly made the town liable.

Very respectfully,

C. L. ALLEN,

Secretary.

GREENSBORO, VT., March 26, 1889.

C. L. Allen, M. D., Rutland, Vt.:

DEAR SIR—It becomes my duty to report two cases of scarlet fever, which occurred in one family in town, some over three weeks ago. They were isolated and all precautions taken to prevent the

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spread of the disease, and I think with perfect success, as it is now more than three weeks since the first case occurred.

I have given away nearly all my circulars, No. 5, and wish for 50 more for general distribution.

Very truly,

F. C. KINNEY, M. D.,

Health Officer for Greensboro, Orleans Co.

WAITSFIELD, VT., April 20, 1889.

Dr. C. L. Allen, Rutland, Vt.:

DEAR DOCTOR—I have had an experience in the last month that has been a very instructive and interesting one to me. One of my "families" consists of the father, mother, three children from five to nine years old, and a hired girl About a month ago, while passing the house, I was called in to look at the children's throats. They had been complaining for a few days of a sore throat, and had not seemed to feel quite as well as usual. I found their throats inflamed, but not enough so I deemed any treatment necessary. In about a week the hired girl went home sick with a sore throat, and her physician told me she had considerable canker in her throat, but there was no diphtheria about it. In a few days after the hired girl went home I was called to see the mother and found her suffering from a well-marked diphtheria. The membrane covered both tonsils, all four faucial pillars, and extended well out into the mouth, and had the characteristic "dirty white-kid" appearance. The constitutional symptoms were quite severe, and now, a week after the membrane has all gone, she is weak and unable to do anything. The children had no membrane at any time that any one discovered.

Now the question is, what relation did the sore throat of the children bear to the diphtheria of the mother? My conviction is that all the parties had diphtheria. I believe that a close watch would have revealed more or less membrane in each of the children's throats. Such an explanation is in keeping with my experience with the disease, viz.: that each succeeding case is apt to be more severe than the last.

This locality has been afflicted with an epidemic of mumps for the last three months. It was imported from Barre, and is likely to leave no susceptible person unattacked. I have noted two peculiarities about the epidemic: first, its lingering along so long, some persons seeming to need several exposures before succumbing; second, the frequency with which metastasis occurs. The proportion of males to females attacked is fully ten to one.

Truly yours,

C. J. ALLEN.

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C. L. Allen, M. D., Rutland, Vt.:

GREENSBORO, VT., May 6th, 1889.

DEAR DOCTOR—I have to report two cases of scarlet fever with recovery, April 6 ; no spread from them, both in one family.

One case diphtheria, fatal, April 28, at Greensboro Bend. No spread as yet and all precautions taken.

Yours respectfully,

F. C. KINNEY.

Health Officer.

HIGHGATE, VT., May 15, 1889.

C. L. Allen, M. D., Rutland, Vt.:

MY DEAR DOCTOR—The diphtheria has broken out here in the west part of the town. There has been four deaths with it, out of ten cases.

Please send me Circulars 5 and 6.

Yours truly,

HENRY BAXTER, M. D.,

Health Officer.

ISLAND POND, VT., May 17th, 1889.

C. L. Allen, M. D. Rutland, Vt.:

DEAR DR.—We have diphtheria in town ; one death to-day and another child sick with same disease. Have you any suggestions to offer for our benefit ? We buried the dead as soon as possible—within a few hours. Will you send me copies of Circulars No. 1 and 2, and four copies of First Annual Report, State Board of Health.

Yours truly,

E. F. NORCROSS.

OFFICE OF DR. F. WHITMAN,
BELLOWS FALLS, VT., July 27th, 1889.

Dr. C. L. Allen, Secretary State Board of Health :

DEAR DR —Pursuant to regulation 1, Circular No. 5, from State Board of Health, I hereby notify you that a case of diphtheria exists here, and that I have taken such action in the premises as the law requires.

Yours very truly,

F. WHITMAN, M. D.,

Health Officer for Bellows Falls Village Corporation.

P. S.—Please send me 10 of the above named circulars.

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ISLAND POND, VT., July 8th, 1889.

Dr. C. L. Allen, Rutland, Vt.:

DEAR SIR—It again becomes my duty to inform you of the presence of diphtheria in our town; three deaths during the past week. It is not thought the disease is spreading at present writing. Will you please send me copies of Circulars No. 1 and 2 and four copies of the First Annual Report of State Board of Health, or take the trouble to inform me why you do not send them, as this is my third request for the same?

Very respectfully yours,

E. F. NORCROSS.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.

RUTLAND, VT., July 16th, 1889.

E. F. Norcross, M. D., Island Pond:

DEAR DOCTOR—Your letter of the 8th inst. duly received. I am very much obliged for the report of cases of diphtheria.

Circular No 1 is out of print. I send you the other circulars, and if you wish any number more I can supply them, especially Nos. 4 and 5.

Only a limited number of the Annual Reports are printed, and after they are distributed as the law directs we have only a few left which are required for other States.

Every town clerk and every town representative has one.

Very respectfully,

C. L. ALLEN,

Secretary.

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LIST OF HEALTH OFFICERS.

Albany	Dr.	J. C. Campbell.
Alburgh	"	Fred A. LaDue.
Arlington	"	W. S. Phillips.
Bakersfield	"	W. H. Giddings.
Barre	"	C. F. Camp.
Barton	"	M. F. Prime.
Barton Landing	"	E. O. Ranney.
Bellows Falls	"	F. Whitman.
Bennington	"	John Potter.
Berkshire	"	G. S. Goodrich.
Bethel	"	L. M. Green.
Bradford	"	J. H. Jones.
Brighton	"	E. F. Norcross.
Brownington	"	W. F. Gilman.
Bristol	"	H. A. Bogue.
Burlington	"	J. C Rutherford.
Burke and Holland	"	A. A. Cheney.
Cambridge	"	J. B. Morgan.
Charleston	"	C. S. Hinman.
Chelsea	"	S. M. Goss.
Concord	"	R. T. Johnson.
Coventry	"	F. D. Badger.
Craftsbury	"	C. W. Dustan.
Danville	"	J. S. Durant.
Derby	"	E. W. Clark.
Dorset	"	C. W. Bartlett.
Fairfield		
Fairfax and Fletcher	"	C. F. Hawley.
Franklin	"	J. B. Hall.
Georgia	"	O. G. Stickney.
Glover	"	P. L. Templeton.
Greensboro	"	F. C. Kenney.
Guildhall	"	N. S. Boyd.
Hardwick	"	S. E. Darling.
Hyde Park	"	David Randall.
Highgate	"	Henry Baxter.
Isle La Motte and North Hero	"	M. J. Hyde.

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Jericho	Dr.	F. H. Cilly.
Johnson	"	Joel Allen.
Lunenburgh	"	H. A. Cutting.
Lyndonville	"	J. W. Copeland.
Morrisville	"	C. C. Rublee.
Moretown	"	J. Haylett.
Montgomery	"	B. W. Davis.
Middlebury	"	M. D. Smith.
Northfield	"	J. H. Winch.
Pownal	"	J. G. Niles.
Randolph	"	A. C. Bailey.
Richford	"	W. R. Prime.
Richmond	"	C. W. Jacobs.
Rochester	"	W. D. Huntington.
Royalton	"	J. P. Dana.
Rutland	"	C. A. Gale.
South Hero	"	C. W. Patten.
Underhill	"	—— Petty.
Waterbury	"	N. Minard.
Woodstock	"	F. T. Kidder.
Windsor	"	J. D. Brewster.
Waitsfield	"	H. T. J. Howe.
Warren	"	O. D. Green.
Westfield and Jay	"	F. S. Gray.

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ADDITIONS TO THE LIBRARY.

MAINE.

Fourth Annual Report of the State Board of Health, 1888.
Sanitary Inspector (monthly), September, 1888, to August, 1889.
Several Circulars from the State Board of Health.
Fourth Annual Report of the Board of Health of the City of Portland, 1889.

NEW HAMPSHIRE.

Seventh Annual Report of the State Board of Health, for 1888.
Seventh Annual Registration Report, for 1886.
Eighth Annual Registration Report, for 1887.
Transactions of the N. H. Medical Society for 1888.
Transactions of the N. H. Medical Society for 1889.
Public Health Laws of New Hampshire.
Extent and Distribution of Consumption in New Hampshire.
Sanitary Volunteer (monthly), from January to September, 1889.

MASSACHUSETTS.

Forty-Seventh Annual Registration Report, 1888.
Twentieth Annual Report of the State Board of Health, 1888.
Weekly Return of Mortality, September, 1888, to August, 1889.
Annual Report of the Board of Health of the City of Newton, 1888.
Report upon the Sanitary Inspection of Tenement Houses in the City of Boston, 1889.

RHODE ISLAND.

Eleventh Annual Report of the State Board of Health, 1888.
Thirty-fifth Annual Registration Report, 1887.
Thirty-fourth Annual Registration Report of the City of Providence, 1888.
Monthly Bulletin from September, 1888, to August, 1889.

CONNECTICUT.

Eleventh Annual Report of the State Board of Health, 1888.
Registration Report for 1888.
Monthly Bulletin of Mortality, September, 1888, to August, 1889.

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VERMONT.

Laws of Vermont, 1888.

NEW YORK.

Twelfth Annual Report, Board of Health of City of Utica, 1887.

Thirteenth Annual Report, Board of Health of City of Utica, 1888.

NEW JERSEY.

Twelfth Annual Report, State Board of Health, 1888, with Report of Bureau of Vital Statistics, 1888.

Laws Relating to Public Health.

PENNSYLVANIA.

Twelfth Annual Report of State Board of Health, 1888, with Report of Bureau of Vital Statistics, 1888.

Laws Relating to Public Health.

Several Circulars and Official Bulletins.

Transactions of Medical Society of Pennsylvania, 1887.

Transactions of Medical Society of Pennsylvania, 1888.

DELAWARE.

Laws Relating to Public Health.

OHIO.

Proceedings of the Sixth Annual Meeting of the Ohio State Sanitary Association.

Sanitary Record (monthly), from September, 1888, to August, 1889.

Monthly Report of the Mortality of the City of Mansfield.

INDIANA.

Seventh Annual Report of the State Board of Health, 1888.

MICHIGAN.

Fifteenth Annual Report of the State Board of Health, 1887.

Sixteenth Annual Report of the State Board of Health, 1888.

Proceedings of the Sanitary Convention at Manistee, June, 1888.

Proceedings of the Sanitary Convention at Hastings, December, 1888.

Proceedings of the Sanitary Convention at Otsego, May, 1889.

Proceedings of the Sanitary Convention at Tecumseh, June, 1889.

Proceedings of the Sanitary Convention at Ludington, July, 1889.

Monthly Health Reports from September, 1888, to August, 1889.

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Numerous Pamphlets from the State Board of Health.

IOWA.

Monthly Bulletin from September, 1888, to August, 1889.

ILLINOIS.

Ninth Annual Report of the State Board of Health, 1886.
Tenth Annual Report of the State Board of Health, 1887.
Preliminary Report on the Water Supplies of Illinois.
Report on Medical Education, Medical Colleges, etc.
Report of the Proceedings of the State Board of Health, January, 1888.
Report of the Proceedings of the State Board of Health, October, 1888.
Biennial Message of Governor R. J. Oglesby, January, 1889.

WISCONSIN.

Twelfth Annual Report of the State Board of Heath, 1888.

KANSAS.

Fourth Annual Report of the State Board of Health, 1888.

NEBRASKA.

Second Report (Bulletins 7, 8, 9, 10) of Agricultural Experiment Station.

NORTH CAROLINA.

Second Biennial Report of the State Board of Health, 1887, 1888.
Bulletin (monthly) of the State Board of Health, from September, 1888, to August, 1889.

SOUTH CAROLINA.

Ninth Annual Report of the State Board of Health, 1888.

WEST VIRGINIA.

Biennial Report of the State Board of Health, 1887, 1888.

MISSOURI.

Proceedings of the Conference of Local Health Officers, 1888.
Transactions of the State Medical Association, 1888.

TENNESSEE.

Bulletin (monthly) of the State Board of Health, from September, 1888, to August, 1889.
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METEOROLOGY.

BY DR. HIRAM A. CUTTING.

Vermont has a changeable climate, much more so now than when her hills were clothed with the evergreen forests which gave her, her name. The erratic winters of to-day have little similarity to the winters experienced by the early settlers. Then the weather was less changeable and a more equal temperature prevailed. The heat of summer and the cold in winter were both mitigated by the endless forest. The evaporation from the foliage in summer tempered the heat, and the protecting influence in winter retained the snow and rendered the melting gradual, which is necessary to prevent freshets or early drouth. Now the change is evident, as the snow melts away earlier, and the hot days of early spring and summer are not tempered with the evaporations of slowly melting snow and from the stately trees, which thus cooling the atmosphere returned moisture for moisture, in long continued rain ; not the rapid rain that carries away our hillsides and meadows to fill the beds of the rivers or destroy tillage land.

Our climate, all admit, has changed, and our forests have changed also, and their change has evidently effected our climate. With those changes come changes of health with our people, as diseases are caused, many of them at least, by climatic influences. The influence of our forests on the healthfulness of the atmosphere demands thoughtful attention. It is vegetation that takes carbonic acid and other deleterious products exhaled by animals from the atmosphere, as well as the gaseous products of decomposition. These the trees more than other plants absorb, and, instead, pour into the atmosphere pure oxygen, so essential to the lives of the entire animal creation. The carbon, which is the very substance of wood, is taken or made up from the carbonic acid thus absorbed. Bequerel, in his investigations, has shown that humid air, charged with miasmata or disease germs, is deprived of them in passing through the forests, and large tracts in Roumania, where people could not live on account of the pestiferous gases, and disease germs of the humid air, have become habitable and healthful by the planting of forests. Schach says: "The fertility of a country depends on its supply of forest land; for on this depends the foundation of soil, the precipitation of dew, the fall of rain, the steady current of rivers, the mitigation of the evil influences of unhealthy winds, and the growth of vegetables in the fields and meadows."

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Daniel Millikin says: "To arrest a pestilence by quarantine, the State sternly interrupts trade, travel and pleasure, but the far greater mortality from the increasing fickleness and cruelty of our climate can be arrested by the gentlest means." It is needed only to restore our forests to our hills, to set our highways with trees, and to protect our incoming growth of small timber, that we may ameliorate the sudden changes that deal out death to our people; and along with that better climate will come not only better health and longer lives, but milder storms and less violent floods, with a better fish supply in our streams, as their water supply will be more equitable, and the banks not so violently rent and torn by floods. The wealth and industry, as well as the agricultural productions of a country depend upon its water supply; and the erratic storms of a few years past, in this State, ought to awaken the inhabitants to the remedy before it becomes too late, as the woodman's axe lies at the root of every merchantable tree in our State, and in a few years the valuable timber to commerce, valuable to the climatic conditions also, will be of the past; and unless uniform efforts are made to protect the incoming forests from fire and vandalism, we shall suffer in climate, which entails more disease to man and less agricultural products from the soil. This year our larger storms have been as follows: Jan. 26th, a great snow storm, with wind, covered the State. At Rutland there were two feet of snow, and freight trains were cancelled, and passenger trains from two to six hours late. Street cars could not run, and highways were badly drifted. At Bellows Falls twenty inches of snow, and railroads and highways were more drifted than they had been for years. Montpelier, nineteen inches, wind almost a hurricane, highways utterly impassable, and it took several days to remove the blockade. St. Albans, fifteen inches of snow, with a heavy gale; roads more blocked than they had been for years. Lunenburgh, ten inches of snow, piled in heaps; wind fifty miles an hour in the night, forty miles in day. Storm very severe, as the temperature was from seven below zero, to twelve above.

March 12th and 13th, Rutland, eighteen inches of snow, roads blockaded and weather severe. Bellows Falls, twenty inches, badly drifted, trains much delayed. Montpelier, twenty-two inches, making a total depth of about four feet. The most severe storm of the winter. St. Albans, sixteen inches and very severe wind. Lunenburgh, twenty-four inches, badly drifted, roads impassable, storm unusually severe.

May 3d, a severe freeze, but little frost.

June 6th, a terrible storm of rain, hail, wind and lightning visited almost every section of the State. St. Johnsbury, some buildings blown down and much glass broken by hail; some dwellings and stores unroofed. Bellows Falls, very heavy rain and much damage by lightning; Westminster town hall struck by it and burned; also, many other buildings. Concord, the hail was severe, much glass broken, and many sugar orchards and much fruit blown down. Cabot, many sugar orchards nearly ruined and buildings blown down. A boy, Charlie Persons, was said to

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have been blown nearly half a mile, but saved himself by clinging to a tree. In different parts of the State much damage was done and some people injured by blowing down of buildings, trees, etc. It was, on the whole, the most remarkable and fatal storm, doing the most damage of any storm recorded in Vermont.

July 31st, hail storms in different parts of the State, but damage local and confined to small areas.

Aug. 27th and 28th, very severe thunder showers in different parts of the State, accompanied with high wind and heavy rainfall.

Sept. 2d and 3d, hail storms in different sections, doing much local damage. Apple crop in Lunenburgh nearly ruined, as hail stones cut into and bruised the apples.

Sept. 6th, very severe frost, injuring corn, also late oats, buckwheat, etc.

December was a peculiar month, cold very unevenly distributed. On the 22d, in different localities in the State, the thermometer ranged, at 7 a. m., from 12° above zero to 30° below zero. At Lunenburgh it was 10 below zero ; Barnet, 20 below zero; Guildhall, 30 below zero ; Bennington, 12 above zero; and perhaps not two townships alike through the State. This was a very remarkable record.

The following summary of the months during the year will give an idea of the season. The average rainfall and temperature for 40 years past are also given for each month. The year, during this period, that had the greatest amount of rain was 1872, being nearly 61 inches. The least was 1880, slightly over 31 inches.

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SUMMARY FOR JANUARY, 1888.

Highest barometer during the month, 12th	29.56
Lowest barometer during the month, 26th	28.20
Mean barometer during the month	28.91
Mean temperature, observations 7 A. M., 2 and 9 P. M.	7.58°
Mean temperature, maximum	15.74°
Mean temperature, minimum	- 77°
Mean from maximum and minimum	7.64°
Highest temperature, 1st	38°
Lowest temperature, 22d	-25°
Highest mean daily temperature, 15th	29.33°
Lowest mean daily temperature 22d	-13.33°
Total precipitation in inches	3.05°
Greatest precipitation in 24 hours, 26th, snow	10 inches
Total snowfall in inches	30.50
Depth of snow in inches on ground at close of month	36.
Number of clear days	10.
Number of fair days	4.
Number of cloudy days without storm	7.
Number of stormy days	10.
Prevailing direction of wind in morning	N. W.
Prevailing direction of wind at night	W.
Direction of wind likely before storms	S. & E.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind, 26th	40 miles
Thunder storms	none
Hail	none
Frost	none
Ozone, on scale of 10	6.

Average temperature for 40 years	15.48°
Average rainfall for 40 years, in inches	3.01

SUMMARY FOR FEBRUARY, 1888.

Highest barometer during the month, 15th	29.25
Lowest barometer during the month, 8th	28.40
Mean barometer during the month	28.84
Mean temperature, observations 7 A. M., 2. and 9 P. M.	17.74°
Mean temperature, maximum	25.66°
Mean temperature, minimum	8.65°
Mean from maximum and minimum	17.17°
Highest temperature, 14th	44°
Lowest temperature, 29th	-22°
Highest mean daily temperature, 14th	40.73°
Lowest mean daily temperature, 28th	-3.33°
Total precipitation in inches	1.28
Greatest precipitation in 24 hours, 5th, rain	.03
Greatest precipitation in 24 hours, 5th, snow, inch	3.
Total snowfall, in inches	9.75

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Depth of snow, in inches, on ground at close of month	37.
Number of clear days	12
Number of fair days	6.
Number of cloudy days without storm	4.
Number stormy days	7.
Prevailing direction of wind in morning	N. W.
Prevailing direction of wind at night	N. W.
Direction of wind likely before storms	S. & E.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind, 25th	35 miles
Thunder storms	none
Hail	none
Frost	none
Ozone, on scale of 10	7.25

Average temperature for 40 years	17.18°
Average rainfall for 40 years, in inches	2.87

SUMMARY FOR MARCH, 1888.

Highest barometer during the month, 1st	29.28
Lowest barometer during the month, 21st	28.25
Mean barometer during the month	28.81
Mean temperature, observations 7 A. M., 2 and 9 P. M.	22.50°
Mean temperature, maximum	31.06°
Mean temperature, minimum	13.87°
Mean from maximum and minimum	22.64°
Highest temperature, 29th	50°
Lowest temperature, 19th	-10°
Highest mean daily temperature, 21st	46.66°
Lowest mean daily temperature, 18th	3.33°
Total precipitation in inches	4.80
Greatest precipitation in 24 hours, 12th, snow, inches	18.
Total snowfall, in inches	34.
Depth of snow on ground, in inches, at close of month	48.
Number of clear days	9.
Number of fair days	11.
Number of cloudy days without storm	3.
Number of stormy days	8.
Pravailing direction of wind in morning	N. W.
Prevailing direction of wind at night	N. W.
Direction of wind likely before storms	S. W. & N. E.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind	30 miles
Thunder storms	none
Hail	none
Frost, 15th, very heavy, trees beautiful.	
Ozone, on scale of 10	8.

Average temperature for 40 years	25.47°
Average rainfall for 40 years, in inches	3.25

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SUMMARY FOR APRIL, 1888.

Highest barometer during the month	29.42
Lowest barometer during the month	28.60
Mean barometer during the month	28.93
Mean temperature, observations 7 A. M., 2 and 9 P. M	33.85°
Mean temperature, maximum	42.66°
Mean temperature, minimum	25.63°
Mean maximum and minimum	33.85°
Highest temperature, 29th	72°
Lowest temperature, 8th	0°
Highest mean daily temperature, 30th	52°
Lowest mean daily temperature, 7th	12°
Total precipitation in inches	.90
Greatest precipitation in 24 hours, 2d and 5th	.20
Total snowfall, in inches	7.50
Depth of snow, in inches, on ground at close of month	24.
Number of clear days	9.
Number of fair days	11.
Number of cloudy days without storm	2.
Number of stormy days	8.
Prevailing direction of wind in morning,	N. W.
Prevailing direction of wind at night	N. W.
Direction of wind likely before storms	S. & E.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind, 6th, 7th and 12th	25 miles
Thunder storms	none
Hail	none
Frost, 11th and 17th.	
Ozone, on scale of 10	7.50

Average temperature for 40 years	38.02°
Average rainfall for 40 years, in inches	2.67

SUMMARY FOR MAY, 1888.

Highest barometer during the month, 3d	29.07
Lowest barometer during the month, 31st	28.65
Mean temperature during the month	28.86
Mean temperature, observations 7 A. M., 2 and 9 P. M	51.29°
Mean temperature, maximum	61.97°
Mean temperature, minimum	43.32°
Mean from maximum and minimum	61.97°
Highest temperature, 26th	88°
Lowest temperature, 3d	25°
Highest mean daily temperature, 26th	78°
Lowest mean daily temperature, 3d	35°
Total precipitation in inches	4.55
Greatest precipitation in 24 hours, 13th	1.65
Total snowfall	none
Depth of snow, in inches, on ground at close of month	none
Number of clear days	7.
Number of fair days	3.
Number of cloudy days without storm	10.
Number of stormy days	11.
Prevailing direction of wind in morning	N. W.

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Prevailing direction of wind at night	W.
Direction of wind likely before storms	E.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind, 20th	20 miles
Thunder storms, 1st, 11th, 16th and 19th.	
Hail	none
Frost, 3d, a freeze, but no frost.	
Ozone, on scale of 10	8.25
Average temperature for 40 years	52.80°
Average rainfall for 40 years, in inches	3.55

SUMMARY FOR JUNE, 1888.

Highest barometer during the month, 27th	29.10
Lowest barometer during the month, 1st	28.50
Mean barometer during the month	28.75
Mean temperature, observations 7 A. M., 2 and 9 P. M.	65.08°
Mean temperature, maximum	74.73°
Mean temperature, minimum	56.07°
Mean from maximum and minimum	64.90°
Highest temperature, 18th	88°
Lowest temperature, 28th	35°
Highest mean daily temperature, 18th	74°
Lowest mean daily temperature, 28th	50°
Total precipitation in inches	2.69
Greatest precipitation in 24 hours, 14th	.55
Total snowfall	none
Depth of snow in inches on ground at close of month	none
Number of clear days	11.
Number of fair days	2.
Number of cloudy days without storm	2.
Number of stormy days	15.
Prevailing direction of wind in morning	N. W.
Prevailing direction of wind at night	N. W.
Direction of wind likely before storms	S. W.
Direction of wind likely in fair weather	N. W.
Maximum hourly velocity of wind, 8th and 9th	20 miles
Thunder storms, 5th, 7th, 11th, 14th, 21st, 22d, 23d, 24th, 25th, 29th and 30th.	
Hail, 5th, 14th and 30th—not heavy here.	
Frost	none
Ozone, on scale of 10	9.
Average temperature for 40 years	64.14
Average rainfall for 40 years, in inches	3.51

SUMMARY FOR JULY, 1888.

Highest barometer during the month, 18th	29.04
Lowest barometer during the month	28.20
Mean barometer during the month	28.81
Mean temperature, observations 7 A. M., 2 and 9 P. M.	66.85°
Mean temperature, maximum	75.97°
Mean temperature, minimum	56.87°
Mean from maximum and minimum	66.86°

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Highest temperature, 22d	84°
Lowest temperature, 12th	42°
Highest mean daily temperature, 22d	67°
Lowest mean daily temperature, 12th	49°
Total precipitation in inches	1.20
Greatest precipitation in 24 hours, 12th	.75
Total snowfall	none
Depth of snow in inches on ground at close of month	none
Number of clear days	14.
Number of fair days	7.
Number of cloudy days without storm	3.
Number of stormy days	7.
Prevailing direction of wind in morning	W. & N. W.
Prevailing direction of wind at night	W. & N. W.
Direction of wind likely before storms	S. W.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind, 12th	40 miles
Thunder storms, 26th, 28th, 29th and 31st.	
Hail, 31st, stones small and little damage.	
Frost	none
Ozone, on scale of 10	9.75

Average temperature for 40 years	68.11°
Average rainfall for 40 years, in inches	3.96

SUMMARY FOR AUGUST, 1888.

Highest barometer during the month, 11th	29.28
Lowest barometer during the month, 1st	28.62
Mean barometer during the month	28.82
Mean temperature, observations 7 A. M., 2 and 9 P. M.	67.58°
Mean temperature, maximum	74.48°
Mean temperature, minimum	59.25°
Mean from maximum and minimum	66.86°
Highest temperature, 4th	85°
Lowest temperature, 14th	48°
Highest mean daily temperature, 4th	75°
Lowest mean daily temperature, 14th	57°
Total precipitation in inches	6.57
Greatest precipitation in 24 hours, 12th	1.00
Total snowfall	none
Depth of snow in inches on ground at close of month	none
Number of clear days	5.
Number of fair days	5.
Number of cloudy days without storm	2.
Number of stormy days	19.
Prevailing direction of wind in morning	W.
Prevailing direction of wind at night	W,
Direction of wind likely before storms	S.
Direction of wind likely in fair weather	W.
Maximum hourly velocity of wind, 28th	70 miles
Thunder storms, 1st, 4th, 7th, 9th, 11th, 14th, 15th, 16th, 18th, 26th and 27th.	
Hail, 3 A. M. of the 27th, damaging fruit very much.	
Frost	none
Ozone, on scale of 10	9.25

Average temperature for forty years	65.40°
Average rainfall for 40 years, in inches	3.70

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SUMMARY FOR SEPTEMBER, 1888.

Highest barometer during the month, 7th	29.35
Lowest barometer during the month, 27th	28.50
Mean barometer during the month	28.90
Mean temperature, observations 7 A. M., 2 and 9 P. M	56.63°
Mean temperature, maximum	65.96°
Mean temperature, minimum	49.16°
Mean from maximum and minimum	57.51°
Highest temperature, 2d, 10th and 11th	78°
Lowest temperature, 6th and 7th	32°
Highest mean daily temperature, 2d and 11th	72°
Lowest mean daily temperature, 6th	40°
Total precipitation in inches	5,36
Greatest precipitation in 24 hours, 26th	.75
Total snowfall, 31st, in inches	.50
Depth of snow in inches on ground at close of month	.50
Number of clear days	5.
Number of fair days	1.
Number of cloudy days without storm	9.
Number of stormy days	15.
Prevailing direction of wind in morning	N. W. & E.
Prevailing direction of wind at night	W. & E.
Direction of wind likely before storms	E.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind, 29th	30 miles
Thunder storms, 1st and 2d, with hail.	
Hail, 1st, 3 P. M., 2d, 3 A. M., not severe.	
Frost (hard) 6th and 7th.	
Ozone, on scale of 10	8.50

Average temperature for 40 years	56.59°
Average rainfall for forty years, in inches	3.34

SUMMARY FOR OCTOBER, 1888.

Highest barometer during the month, 26th	29.43
Lowest barometer during the month, 7th	28.30
Mean temperature during the month	28.64
Mean temperature, observations 7 A. M., 2 and 9 P. M	40.71°
Mean temperature, maximum	48.45°
Mean temperature, minimum	32.42°
Mean from maximum and minimum	39.94°
Highest temperature, 5th	62°
Lowest temperature, 1st	20°
Highest mean daily temperature, 5th	56°
Lowest mean daily temperature, 1st	32°
Total precipitation in inches	5.25
Greatest precipitation in 24 hours, 28th	.80
Total snowfall in inches	3.
Depth of snow in inches on ground at close of month	0.
Number of clear days	2.
Number of fair days	8.
Number of cloudy days without storm	4.
Number of stormy days	17.
Prevailing direction of wind in morning	E.
Prevailing direction of wind at night	E. & N. W.

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Direction of wind likely before storms	E.
Direction of wind likely in fair weather	N. W.
Maximum hourly velocity of wind, 29th	30 miles
Thunder storms	none
Hail	none
Frost, 1st, 4th, 11th and 15th.	
Ozone, on scale of 10	7.50

Average temperature for 40 years	44.70°
Average rainfall for 40 years, in inches	3.53

SUMMARY FOR NOVEMBER, 1888.

Highest barometer during the month, 23d	29.47
Lowest barometer during the month, 10th	28.20
Mean barometer during the month	28.90
Mean temperature, observations 7 A. M., 2 and 9 P. M.	37.22°
Mean temperature, maximum	43.16°
Mean temperature, minimum	29.60°
Mean from maximum and minimum	36.38°
Highest temperature, 5th	58°
Lowest temperature, 23d,	0
Highest mean daily temperature, 5th	49°
Lowest mean daily temperature, 23d	16°
Total precipitation in inches	4.94
Greatest precipitation in 24 hours, 19th	.75
Total snowfall, in inches	4.
Depth of snow in inches on ground at close of month	0.
Number of clear days	7.
Number of fair days	0.
Number of cloudy days without storm	12.
Number of stormy days	11.
Prevailing direction of wind in morning	W. & N. W.
Prevailing direction of wind at night	E. & N. W.
Direction of wind likely before storms	E.
Direction of wind likely in fair weather	N. W.
Maximum hourly velocity of wind, 26th	30 miles
Thunder storms	none
Hail, 11th.	
Frost, 2d.	
Ozone, on scale of 10	6 75

Average temperature for 40 years	31 28°
Average rainfall for 40 years, in inches	3.24

SUMMARY FOR DECEMBER, 1888.

Highest barometer during the month, 23d	29.18
Lowest barometer during the month, 18th	27.80
Mean barometer during the month	28.69
Mean temperature, observations 7 A. M., 2 and 9 P. M.	28.14°
Mean temperature, maximum	33.39°
Mean temperature, minimum	22.35°
Mean from maximum and minimum	27.87°
Highest temperature, 25th	52°

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Lowest temperature, 22d	-10°
Highest mean daily temperature, 25th	43.50°
Lowest mean daily temperature, 22d	2.50°
Total precipitation in inches	3.07
Greatest precipitation in 24 hours, 17th	1.55
Total snowfall, in inches	9.50
Depth of snow in inches on ground at close of month	1.
Number of clear days	8.
Number of fair days	10.
Number of cloudy days without storm	5.
Number of stormy days	8.
Prevailing direction of wind in morning	N. W.
Prevailing direction of wind at night	N. W.
Direction of wind likely before storms	S.
Direction of wind likely in fair weather	W. & N. W.
Maximum hourly velocity of wind, 28th	35 miles
Thunder storms, 17th.	
Hail, 17th.	
Frost	none
Ozone, on scale of 10	6.50
Average temperature for 40 years	19.35°
Average rainfall for 40 years, in inches	2.95

The season of 1888 has been a remarkable one. Though the rainfall is greater than it has been since 1872, it has not fallen at a time to very much benefit the crops, but in fall and winter. There has been severe showers and hail, both of which have done much damage; also much more wind than usual. The season has, in fact, been a peculiar one, but has, in this section, brought no unusual death rate or any great amount of sickness.

There has been a larger number of clear days, and more thunder showers than for years, which has given an excess of ozone above most seasons. It has raised the annual rainfall for a 40-year period to 40.03 inches, and made the apparent deficit for the previous sixteen years greater, yet it would be less with this year included, but not enough so to prevent the apparent decrease of water. Undoubtedly the cutting off of the original forests will make the future more erratic, even, than the past few years have been. Patient and continuous observation will doubtless teach us much more in every direction than we yet know, so we will not advance hasty conclusions.

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ANNUAL SUMMARY OF METEOROLOGICAL OBSERVATIONS,

Made by Hiram A. Cutting, observer at Lunenburgh, Vt. (elevation 1,210 feet) for the year ending December 31, 1888.

MONTH.	Ozone.	Mean pressure corrected for temperature only.	TEMPERATURE. Mean of 7 A. M., 2 & 9 P. M.	TEMPERATURE. Max.	TEMPERATURE. Min.	Total precipitation, (rain and melted snow.)	Total snowfall, inches.	WIND. Prevailing direction.	WIND. Maximum velocity or force.	REMARKS.
1888.										
January.....	6 00	28.91	7.58	15.74	-0.77	3.05	30.50	N. W.	30 m.	Highest wind, on the 27th.
February	7.25	28.84	17.74	25.66	8.65	1.25	9.75	N. W.	35 m.	Highest wind, on the 25th.
March.... ...	8.00	28.81	22.50	31.06	13.87	4.80	34.00	N. W.	30 m.	Highest wind, on the 12th.
April.....	7.50	28.93	33.85	42.66	25.63	.90	7.50	N. W.	25 m.	Highest wind, on the 6th, 7th and 12th.
May.....	8.25	28.86	51.29	61.97	43.32	4 55	.....	N. W.	20 m.	Highest wind, on the 20th.
June	9.00	28.75	65.08	74.73	55.07	2.69	....	W.	20 m.	Highest wind, on the 2d, 8th, 9th, 11th and 12th.
July....	9.75	28.81	66.85	75.97	56.87	1.20	....	N. W.	40 m.	Highest wind, on the 12th.
August.....	9.25	28.82	67.58	74.48	59.25	6.57	....	W.	70 m.	Highest wind, on the 28th at 3 A. M.
September....	8.50	28.90	56.63	65.96	49.16	5.36	.50	N. W.	30 m.	Highest wind, on the 29th.
October	7.50	28.64	40.71	48.45	32.42	5.25	3.00	E.	30 m.	Highest wind, on the 21st and 29th.
November	6.75	28.90	37.22	43.16	29.60	4.94	4 00	W.	30 m.	Highest wind, on the 26th.
December.....	6.50	28.69	28.14	33.39	22.35	3.07	9.50	N. W.	35 m	Highest wind, on the 28th.
Sums..	94.25	345.86	495.17	593.23	396.96	44.63	98.75	N. W.		
Averages ...	7.85	28.82	41.26	49.43	33.08					
Average maximum and minimum..				41.25°						

Average annual temperature for 40 years, 41.60°.

Average annual rainfall for 40 years, 40.03 inches.

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